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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,874	06/14/2001	Marshall E. Lester	LESS71	6227

7590 11/06/2002
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EXAMINER

TANG, SON M

ART UNIT	PAPER NUMBER
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2632

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/879,874

Applicant(s)

LESTER, MARSHALL E.

Examiner

Son M Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Double Patenting

1. Claims 1-40 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-33 of copending Application No. 09/656,160. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both claimed a power line communication transmitter using pulse position modulated technique, comprises a triac switch in series with capacitor, a zero crossing detector and a digital control integrated circuit. However, application 09/656,160 is using a term of “signal time windows” which referring to a time-spaced from the zero crossing voltage, it means the same as “signal time positions” as claimed. Therefore, it's obvious for one skill in the art to use a different term to describe the same feature.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belcher et al. [US 4,328,482] in view of Torre [US 4,658,241].

As to claim 1: Belcher et al. disclose a system for transmitting control signals on an AC power line, which comprising:

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- a first and second connections for connecting to an AC power line [10] and to transmitter [30] and receiver [62] [Fig. 8];
- a chargeable capacitor [20] and a triac switch [18] in series therewith;
- a digital control IC, met by a code generator [16];
- a zero voltage crossing detector [Abstract];
- a signal source met by a Sync pulse generator [14] to actuate said code generator [16] and being coupled to switch in series with said capacitor [Fig. 1 and col. 4, lines 31-60 and col. 6, lines 53-64 and col. 8, lines 53-61].

Belcher et al. also disclose a filter circuit [Fig. 12] for filters out the AC power and passing signal pulses to the receiver [col. 7, lines 50-65].

Belcher et al. disclose the instant claimed invention except for: a pulse position modulated technique. Torre teaches a system that sending signal through power line using a signal time position is another well known terms for pulse position modulation [Fig. 1-2 and col. 2, lines 55-65 and col. 19, lines 40-46 and in Abstract]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use one of a well known modulation technique such as a pulse position modulation to inject data on the power line.

As to claim 2: Although Belcher et al. not specifically disclose a memory connected to a digital control. However, Belcher et al. mentioned that [the code pulses are produced in a predetermined number ... as cited in col. 4, lines 31-44]. Therefore, it is obvious in skill of the art that one would want to program a predetermined number in the system, the system has to have a memory to store that predetermined number.

As to claims 3-9 and 13-32: Refer to claim 1 above.

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As to claims 10-11: Refer to claim 2 above.

As to claim 12: Belcher et al. further disclose wherein an output driver met by a relay [56] being connectable to the load [Fig. 5 and col. 5, lines 55-65].

As to claims 11-26: Refer to claims 1-10 above.

As to claims 27-33 and 33-40: the claimed method steps are interpreted and rejected as rejection stated above.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Russ et al. [US 4,398,178] ; Thompson [US 5,005,187] ; Stevens [US 5,264,823];

Sagalovich et al. [US 5,614,811]; Merwin et al. [US 5,691,691]; Gurr [US 4,264,960];

Mak et al. [US 4,996,513]; Smith et al. [US 4,567,511];

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son M Tang whose telephone number is (703)306-5970. The examiner can normally be reached on 4/9 First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J Wu can be reached on (703)308-6730. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3988 for regular communications and (703)305-3988 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

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Son Tang

November 1, 2002


DANIEL J. WU
PRIMARY EXAMINER
11/01/02